ABSTRACT OF THE DISCLOSURE

A special transformation type context model encoder is supplied with an image signal and performs encoding processing according to context modeling. A transformation prediction difference processor subjects an appropriate referable pixel to special reversible S transformation, which is transformation including shift transformation and constant-range transformation and using an appropriate transformation coefficient that satisfies a condition for reversibility, and thereby calculates an initial prediction value. The transformation prediction difference processor also quantizes context after the special reversible S transformation. A prediction error calculator makes prediction correction of the initial prediction value according to the quantized context and then calculates a difference between the prediction value and a pixel to be predicted to encode an image signal. An entropy encoding compressor subjects the encoded image signal to entropy encoding to thereby generate a compressed image signal. In this case, the context is reflected in the entropy encoding as required.

38